

04C0

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/653,730

DATE: 09/20/2000

TIME: 12:19:51

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\09202000\I653730.raw

3 <110> APPLICANT: Whiteley, Marvin
4 Lee, Kimberly
5 Greenberg, E. P.
6 Muh, Ute
8 <120> TITLE OF INVENTION: QUORUM SENSING SIGNALING IN BACTERIA
10 <130> FILE REFERENCE: UIZ-038
C--> 12 <140> CURRENT APPLICATION NUMBER: US/09/653,730
C--> 13 <141> CURRENT FILING DATE: 2000-09-01
15 <150> PRIOR APPLICATION NUMBER: 60/153,022
16 <151> PRIOR FILING DATE: 1999-09-03
18 <160> NUMBER OF SEQ ID NOS: 39
20 <170> SOFTWARE: PatentIn Ver. 2.0
22 <210> SEQ ID NO: 1
23 <211> LENGTH: 1218
24 <212> TYPE: DNA
25 <213> ORGANISM: Pseudomonas aeruginosa
27 <400> SEQUENCE: 1
28 atggacgacg tattgcaacg cgtacggcgc tgcgaagcgc tgcagcaacc cgaatggggc 60
29 gatccgtcgc gctcgcgcga cgtgcaggcg tactcgcgcg gcagtcgccg gctgatcccg 120
30 gccggcgaca tcttgccctt gcgcgcgacc ctggcgcggg tcgcccgcg cgaggcgctg 180
31 gtggtacagt gcggcgactg cgcgcaggac atggacgacc accatgccga gaacgtggcg 240
32 cgcaaggcgg ccgtgctgga actgctggcc ggccgctgct gcctggccgg ccggcgccgg 300
33 gtgatccgcg tcgggcgcac cgcggggcag tacgccaagc cgcgttccaa gccgcacgag 360
34 caggtcggcg agcagaccct gccggtctat cgcggcgaca tggccaacgg ccgcgaggcc 420
35 catgccgaac agcggcgggc cgatccgcag cggatcctca agggctatgc ggccggcgcg 480
36 aacatcatgc gccacctggg ctgggaacgc gcgtccgggc aggaggcgaa tgcctcgccg 540
37 gtctggacca gccacagat gctgctgctc gactacgagc tgcgatgct gcgcgaggac 600
38 gagcagcgcc ggttctatct cgttcgacc cactggccgt ggatcgcgca gccacccgcg 660
39 caggtcgacg gcgcccatgt ggcgctgctg gccgaggtgc tcaaccgggt ggctgcaag 720
40 gtcggtcccg agatcgcccg cgaccagttg ctggcgctct gcgagcgctt cgatccgcgc 780
41 cgcgagcccg gacgcctgac gctgatcgcg cggatgggcg cgcagaaggt cggcgagcgc 840
42 ctgccgcccg tgggtggagg ggtgcgcgcg gccgggcacc cggatgatct gctgagcgac 900
43 cggatgcacg gcaacacccat cgtcgcgcgc tgcggcaaca agaccgcct ggtgcgcgac 960
44 atcgccgagg aggtggcgcg gttccgcctg ggatcctcta gccgaggcgg cgtgctcaac 1020
45 ggactgcacc tggaaaccac cccggacgac gtcaccgagt gcgtcgccga ttccagcgcg 1080
46 ctgcaccagg tcagccggca ctacaccagc ctctcgatc cgcggctgaa ccctggcgag 1140
47 gcgctcagcg cgggtgatggc ctggtccgcg gcagaagcga tccagagcgc aaccttcccc 1200
48 ctggagaccg tggcatga 1218
50 <210> SEQ ID NO: 2
51 <211> LENGTH: 1782
52 <212> TYPE: DNA
53 <213> ORGANISM: Pseudomonas aeruginosa
55 <400> SEQUENCE: 2
56 atggatgatg gggcacagcc tgcgcacac ctgggatgcc ctgccaccac tgcgtggccg 60
57 ctccgcgcgc tacttcgtca acaccttcgt cactactgg tggcatcgcg cgcgccacgc 120
58 caacgacacg ctctggcgcg tttccacca gttgcaccac gcgcgcgaac gcacgaggt 180
59 attcacctcc ttctacaagc atccgaccga gatggtcttc aactcgctgc tgggcagctt 240

ENTERED

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/653,730

DATE: 09/20/2000

TIME: 12:19:51

Input Set : A:\Seqlist.txt

Output Set : N:\CRF3\09202000\I653730.raw

```

60 cgctgcctac gtggtgatgg gcatcagcat cgaggccggc gctactaca tcatgttcgc 300
61 cgcgctcggc gagatgttct accactcgaa cctgcgcacc ccgcacgtcc tcggctacct 360
62 gttccagcgc ccggagatgc accgcatcca ccaccagcgc gaccgtcacg agtgcaacta 420
63 cagcgacttc ccgatctggg acatgttggt cggcacctac gagaaccccc gccgcatcga 480
64 cgagccgagc ggcttcgccc gcgacaagga gcagcagttc gtcgacatgc tgctgttcgc 540
65 cgacgtgcac agcctccccg gaaaaaccca gcccgctccc gtcctgtgta agcccagcgt 600
66 caggtgaacg ccatgatccc agacatcgat tcccgtctca gccggaacat attgaaatcc 660
67 atctcgtagt gcctccccc cgcgaagtgc gtcccgacc atacctatgc gcaactggaa 720
68 acgcccctcg gcgaactgaa acgcaggtat ctggagctgc gcactctcca cgcgcgcgcg 780
69 gagctgcggt tcagcaacta cctgttctac ctgatcctcc agtcgcgcca ccaggaattc 840
70 gacttcaagc tgcgcccagg caactcgggt gtcaccaaca tcaccgatt caagagcaag 900
71 ggacgcatcc cgtccctgac caccctgtc ctggccgatg cggtaacgc caagagcgag 960
72 ctggagctca agcatccgga catcccgag ctgcacgccc acgctcgcga catcgagcgc 1020
73 tggctggccg ccggcaacgt catgcccgc agcgagcggg cctgcgcgg cctggttag 1080
74 gcgctggagc gcgcccgtg cgaaggccgt ccgttgacc tggtagcgc ggtatgccc 1140
75 gactactcgc actccagcga tgccgagggc aagccgcgct acacctcga gcgagtcggc 1200
76 gaccagcccg gcctggcccg cgcgaagctg gtcagcgcgc gccagcgggt ggcgagctg 1260
77 gccagggcgc gccaggtgga aatccgccac gcgactctcg gcggcgagtt cgagtacct 1320
78 tcgttcaacc gcaaccccgc caccggcgag acccgcgagg gtttctctcg caaggtcgag 1380
79 cgccagctcg agcgggatgc cggggccctg cctgcgcgg ccgcgacctg ctcgttcttc 1440
80 gagatgtgag gcgcccagga cggctggcac caggcccacg gcgagatcgt ccagcgcctg 1500
81 gaacagggcg actacggcca gaccgggctg gactaccccg ccttggaaac gatcttctcg 1560
82 tcgcccctgc cgtctctacg gaaatgggtc gccagccagt cgcgcgagca gatctgggccc 1620
83 agcttctgtc cccagggcgc cgagtacgca ttgatgggaa aactcttcgg cgagcgcttc 1680
84 gacaacttcg tcgtgctggc cgtcgatcac taccggatgg agcggttcta ctcgttcttc 1740
85 gcgaccgtcc cgacgctcta catccgaacc gactacctgt aa 1782
87 <210> SEQ ID NO: 3
88 <211> LENGTH: 693
89 <212> TYPE: DNA
90 <213> ORGANISM: Pseudomonas aeruginosa
92 <400> SEQUENCE: 3
93 atgcccgcga ccagcccac accaaccaac ccgcatccca ggctaccgcc tgatcacaca 60
94 ggaaccccc tgaatactca gattgcccag atcaccaga gctggcagc caacggctgc 120
95 gcctatatca cccccagcga cgcgctctac gacgagcagg actgggaact gatgaaccag 180
96 gtccctggca actcgaccct gccgtgggag aagatcctga tcggcgacgc cgacgaggag 240
97 aacgacctct acgtggccc tttcatgacc gaccgcgacc gteccacggt ggtcaaccat 300
98 gcgctgtcgg agctgatcat cccgcgcgtc tgcaacgaca acgtgatgag cctgttccgc 360
99 aagctgatgg gcgacgacgc cttctacgtc cggcgcatgc aggtgaaccg gatgaaggcc 420
100 ggctcgttca tcggccggca cctggatacc gacagcaacc cggactacca gtactccatc 480
101 gtctgcagc tcggcaccta cttctccggc ggccagttcg tggctacga ccgcgacggc 540
102 aacctgcgca acgacatcaa gcggagccc cgtcgggtga tcatcagcga ctgtagctat 600
103 cccacagagg tcacgaggt gaccgcccgc gagcgcgtct cgtgggtgtt cttcgtcagt 660
104 cgccatgcgg accggaaccg gcgggtctat tga 693
106 <210> SEQ ID NO: 4
107 <211> LENGTH: 411
108 <212> TYPE: DNA
109 <213> ORGANISM: Pseudomonas aeruginosa
111 <400> SEQUENCE: 4
112 gtgacggact tcgaatcttc gcgtcgcgt cgtccaccg gattgtccg cgcgctgcg 60

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/653,730

DATE: 09/20/2000

TIME: 12:19:51

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\09202000\I653730.raw

```

113 cggccgcgct ccagcgcagc gccactgccg gatctggcag ttgtcgctgg cggggacgga 120
114 ggcttttagta gccgcacttt tttccagggc cgggcagtg gaccgcaatg catggacgac 180
115 atcgagacca gagtgaggaa actggtagcc gcccggttcg gcgtggagga atgcgacatc 240
116 cggctggaca ggcacttcg taacgacttc ggtgccgagt cgctcgaggt agtcgaactg 300
117 gtcatggccc tggaagcgga gttcggcgtc gagatcgccg atgacgatgc ggaacggatc 360
118 gagaccgtgc gccaggccat cgactatctc gaggaagccg tgccgacctg a 411
120 <210> SEQ ID NO: 5
121 <211> LENGTH: 588
122 <212> TYPE: DNA
123 <213> ORGANISM: Pseudomonas aeruginosa
125 <400> SEQUENCE: 5
126 atggccgtcc gggctcgagga agtagaacga atcgccctcg ctgcggttct gttccattc 60
127 gcgcacgcca tgcgcgcgca gctgcgcggc gaagcgggcg aaatccgcgg cggcgatgcc 120
128 gaaggcgtag tgcgtgtagt ccgcggccgg cccgcgtac tgcggtccc gggacaggca 180
129 cagccacagc gaaccagtt cgagatagcc gccctggtcc cagcgctt ccaggcgaaa 240
130 gccgagaaga tcgcggtaga agcgatgct ggcgggagg tcgcgaccg ccagggtcag 300
131 gtgattgaga ccggttaagca tgggggctcc ttgcaagatg tggcgggagg tcgattcagg 360
132 cagctccag ccagtcgccc cggatcattt ccatcagttg gcgcaagccg ggttcggct 420
133 ggcgtcggct cggatagtag agcgagaacg gcgcgcccat cgaggtccag tccggcaata 480
134 ccagttgcag ccggccgcta cgcagctcct cggcgattcc cactccagg cagtaggcca 540
135 ggcgcacacc gtccagggcc gcggcaaccg ccgtattgct ttcgttga 588
137 <210> SEQ ID NO: 6
138 <211> LENGTH: 1020
139 <212> TYPE: DNA
140 <213> ORGANISM: Pseudomonas aeruginosa
142 <400> SEQUENCE: 6
143 atgaacggaa ccgcgcgcca taccctcgcc gtatcgcccc cggccctgcg caacctctgc 60
144 gacggccacg gccggctcga tccccgggag gtcggctggt cggcccgcc gcgggtgctc 120
145 tgccacatcc ccggccactt cggccggcgc aagcgctgga accactggtg catcgtcagc 180
146 cccggctgga tgcctctcgt gacctcgcc gacctcgact acctgacct cggcgccgcc 240
147 tatttctcgt acctggacag cggccaggcg gtacgcaca cgcagatccg ctctctcgcc 300
148 ctgcgctgcc agttgcccga cgagccgcag gccagccatg ccttcgagca tccccgcctg 360
149 caattgcgct tcgacgaaca gcccgggcgc ctgcgcgtca cgggccaggc cccggacctc 420
150 ggtggcctgc cgctggagct ggcgtggaa gtgcgacgac cgtcgacct gtagtcggtg 480
151 aacctggtg tgccgatggg cgaacacacc ttccatgcct gcagccgcca gtcgggctg 540
152 ccgatcagcg gctgcctgca gctcgccgc cgacgctacg actgccaggc gggccagagc 600
153 ttgcgcgcgc tggacttcgg ccgcggtgct tggccgctgc atacctactg gaccgcgcgc 660
154 gccttcgccc ccccggcgcg catcgccggc aacttcggca ccggctggac cgaagccagc 720
155 gacctgcgcg agaacgcctt gtggttcggc ggcaagctca gccgctgct cgacgacgtg 780
156 cacatccgcg agcctcgcca ccgcgtggcc gaatggcgcc tggacagcgc ctgcggtcgc 840
157 gtcgagctgc tcttcgctcc cgaacagctg caccagggcg ggcccagcgt cggcctgttc 900
158 tatgccaata ccgcgcaagt gttcggccgt ttcaacggca ccctcgcca cgacgacggc 960
159 gactgcgtgc cggtggaagg cgccctcgcc tggatcggtt cgaccgcgc gcgctggtga 1020
161 <210> SEQ ID NO: 7
162 <211> LENGTH: 1170
163 <212> TYPE: DNA
164 <213> ORGANISM: Pseudomonas aeruginosa
166 <400> SEQUENCE: 7
167 atgaacact actcagccac cctggcactc ctgcactca cctcgccct gttcctgcc 60

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/653,730

DATE: 09/20/2000

TIME: 12:19:52

Input Set : A:\Seqlist.txt

Output Set : N:\CRF3\09202000\I653730.raw

```

168 caggcagccc atgcccacgg ctcgatggaa acgcccgcga gtcgggtcta cggtgcttc 120
169 ctggaagggtc cggagaatcc caagtgcggc gcctgcaagg ccgcccgtgc cgccggcggc 180
170 acccaggcac tgtacgactg gaatggcgtc aaccagggca acgccaacgg caaccaccag 240
171 gcgggtggtec ccgacggcca gctctgcggc gccggcaagg cactgttcaa gggcctgaac 300
172 ctggctcgca gcgaactggc cagcaactgc atcgcgccgg acgcccagcg caacttccag 360
173 ttctgttaca agcccagcgc gccgcacggc acccgctact tcgaattcta catcaccaag 420
174 gacgggtata accccgagaa gccgctggcc tggagcgacc tggaaaccgc gccgtttctgc 480
175 tcgatcacca gcgtcaagct ggagaacggc acctaccgga tgaactgccc gctgccccag 540
176 ggcaagaccg gcaagcatgt gatctataac gtctggcagc gctcggaacg cccggaagcc 600
177 ttctacgcct gcatcgagct gagcttcagc ggccgcgtcg ccaacccttg gcaagcgctg 660
178 ggcaacctgc gcgcgcagca ggacctgcca gccgggtgta ccgtcacctt gcgtctgttc 720
179 gatgcccagg gccgcgacgc ccagcgtcac agcctgaccc tggcccaggg cgccaacggg 780
180 gccaagcaat ggccgctggc gctggcgagc aaggtcaacc aggaactccac cctggtcaac 840
181 atcggcgtgc tggatgccta cggggcggtc agcccggttg ccagctcgca ggacaaccag 900
182 gtctacgtgc gccaggccgg ctaccgcttc caggtcgaca tcgaactgcc ggtcgagggc 960
183 ggccggcagc aaccggcgcg cgacggcaag gtcgacttcg actatccgca aggcctgcag 1020
184 caatacgacg ccgggacgtg agtgcgcggt gccgatggca agcgtacca gtgcaagccc 1080
185 taccgaact ccggctggtg caagggttgg gacctctact acgccccggg caagggcag 1140
186 gcctggcagg acgcttgac cctgctgtaa 1170
188 <210> SEQ ID NO: 8
189 <211> LENGTH: 210
190 <212> TYPE: DNA
191 <213> ORGANISM: Pseudomonas aeruginosa
193 <400> SEQUENCE: 8
194 atgttgaaag tggcgatcgt cctgctactg ctggctaccc tggtagcct gttcagcggc 60
195 ctgttcttcc tggtaagga ccaggccat ggttcccgcg tggtaattc gctgaccgtc 120
196 cgcgtggtgc tcgccggcg gacctgggtg ctggtcgcc tgggctteta cagcggcgag 180
197 ctgaacagcc acgcgccctg gcatcttcta 210
199 <210> SEQ ID NO: 9
200 <211> LENGTH: 1872
201 <212> TYPE: DNA
202 <213> ORGANISM: Pseudomonas aeruginosa
204 <400> SEQUENCE: 9
205 atgagtttcc cgataaacat caattatag agtttcccta tgtgcggtct cgcgggttgg 60
206 gtggattaca cgcgcaagct cgacgacgaa tttccggcga tcttcgcat gaccgatacg 120
207 ctgccttgc gcgggcccga tgcgagggc atctggaagc accgcaacgc cctgctgggt 180
208 caccggcggc tggcggtcat cgacctcagc ggccgcgtgc agccgatgc ctatcgcttt 240
209 cccaccggcc aggaggtcac cctcgtctac accggcgagg tgtacaacca cgatgccctg 300
210 cgcgagcggt tgcgcggggc cggacatgag ttccgcaccc gcagcgatac cgaggtgggc 360
211 ctgcacgect atctgcaatg gggcgagcgt tgttgcgagt acctgaccgg gatgttcgcc 420
212 ttgcgcgtct tcgatggccg cgacggccac ctgctgctgg tgcgcgaccg cctggggcatc 480
213 aagccgctgt attacgcgcg gcaccgcgag ggaactgctg tcggctcgga gatcaagtcc 540
214 atcttggcgc atccggaatt cgccgccagg ctgcacggcg tcggcctggt cgacctcctg 600
215 acgctgtccc ggggcaactt gcagacggcg ttccgcgagg tccaggaaact gctgcccggc 660
216 cactgctgt cctggcgctc caattcccag gcgaagtgc gccgctactg ggaggtgcgc 720
217 cgcaggagc atgcccagca cctgcagagc accgtgcagc gcacccgcga actgggtacc 780
218 cgcgcctgg gggcgcaatt gcacgcgac gttccgggtg gttcgtgct atcggttggg 840
219 ctcgattcga ccgcccgtac cggcatcgcc cagcgcatcg cgaaggcgga gcacggcggc 900
220 gacatcaatt cgttctcggt ggacttcgct ggccaggccg agcagttccg cagcgacgac 960

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/653,730

DATE: 09/20/2000

TIME: 12:19:52

Input Set : A:\Seqlist.txt

Output Set : N:\CRF3\09202000\I653730.raw

```

221 ctgcgtcccg accaggacca gccgttcgcc ctgctggcgg cgcagtagat cggcagccgt 1020
222 catcgcaacc tgctcatcga caatgccgaa ctggtctgcg aacgagcgcg cgaagaggta 1080
223 ttccggggca aggacgtacc ttacaccttc ggcgacatgg atacctcgct gcacctgatg 1140
224 ttccggcgaga tccgcgggca ttccacgggt gccatctccg gtgaaggcgc gcagagctg 1200
225 ttccggtggct acggctggtt ccgcgatccg caggcggtgg ctgcggcgcg cttcccttgg 1260
226 gctccagggg tgcgcctgcc ggccggcttc atcgacggcg gtttcaaccg ccgctgcgat 1320
227 ctctccaggt accagcaggc cagctacgac gatgggttgc gccaggtcga acacctggcc 1380
228 ggcgacagcg cggaggagcg gcggatgccc gagttcagcc acctgcactt gaagcgctgg 1440
229 atggtgctgc tgctcgaacg caaggatcgc ctgagcatgt gcaacggcct ggaggtgccc 1500
230 gtgccttaca ccgaccatga gctggtggag tacgtctaca acgtgcccgt gtcgatcaag 1560
231 agccgggacg gcgaggagaa gtggctgctc aagcgggccc gcgcgacta tgtcccgaa 1620
232 gccgtgctca agcgcgcgaa gagcccttat ccgacttctg ccaacctcgg ctacgagcgt 1680
233 ttcttgccgc ggagcggtgc gcgcctgctg gaggacggcg tgaacccggt gttcggcatc 1740
234 gtttcgcgag agttcttggc cgcggaactg gagcatccgg aggggtactt caacacccag 1800
235 gtgagccgcc acaacctgga gaccgcaact gcgctggaag gctggctcag gttgtacggg 1860
236 ctctccgccc ga
238 <210> SEQ ID NO: 10 1872
239 <211> LENGTH: 756
240 <212> TYPE: DNA
241 <213> ORGANISM: Pseudomonas aeruginosa
243 <400> SEQUENCE: 10
244 atgcagaaac agcgggtggc cgaccaggtc gcagagcgta tcgagcggtt gatcgtcgac 60
245 ggcgtgctca aggtcggcca ggcactgccg tccgagcggc gcctgggtggc caagctcggc 120
246 tgctcgcgct cggccctgcg cgagggcctg cgggcgctgc gcgggcgcgg catcatcgac 180
247 accgagcatg gccgtgggtc gttcgtcgcc gacctcgacc gcaacgcgga cgtcagcccg 240
248 ctgatgcacc tgttcggctc ccagcgcgcg acctctacg acctgctcga agtccgcgcc 300
249 ctgctggagg gcgaggcggc ccgcctggca gcgctacgcg gcaacgaggg agacttcgtc 360
250 ctgctcgccc ggcgtacgca agagatgctc gccagccacg aggaacacca gccgatcgat 420
251 cccgcgcgag acgcccgcgc cgaccacgcg ttccaccggg cgatcagcga ggcacgcac 480
252 aatccggtgc tgggtgatac cctgcaatcg ctcaacgaac tgctgctgag cacggtgttc 540
253 gcctcagtg acaacctcta ccacgacccg ccgcagaaac gccagatcga ccgccagcac 600
254 gcgcgcctct acgcggccct ccgcgagcgc cagccggacc aggcgcaacg ggcggcgcg 660
255 gaacatatcc acagcatccg cgacaacctg cgggagatcg agcaggaaga acagcgccgt 720
256 gtccgcgcca cctgcgcct gaacggctgg ggtgta
258 <210> SEQ ID NO: 11 756
259 <211> LENGTH: 822
260 <212> TYPE: DNA
261 <213> ORGANISM: Pseudomonas aeruginosa
263 <400> SEQUENCE: 11
264 atgaaccatg tcatcaccce ccacagcaag ctgctcggcg tcatcgagcc ggtcctcaac 60
265 gacatgcccg ccggaacctt gcgccacgca ctgttcgggg ccttctggga cgagacggcg 120
266 tcgttgcttg acatcgagga cgccttcgcc cgggtcaccg ccggcgcgca ggcggtcgag 180
267 ccgctgcgca agttcttcgc cagttggtcg aagaccaaca actcggcgcg cagcgtttcc 240
268 ggactggcca atcgccctac cctgctggcc cgttcggaac agggttcggc agcggcgagc 300
269 cagctctatc gagcctgcgg cagcctgcaa cggatcaccg acgaagacct cggcgcccto 360
270 ggcaacacgg tgcatgccga tcttttctac acctgggcca ccacctttg cggcgacgac 420
271 cgctggctgc tgcgcgagaa ctgcctgcct tcggcgagg cgttcaagga ctggaccgac 480
272 cgccagcgcc tgtgcgagcg cgacctgatg cagggaactg tgaccacgct ggtacacgag 540
273 gtctataccc acggcgaggt ggagtacatc caccgctgtt acaaggaatg gttcagccgc 600

```

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/653,730

DATE: 09/20/2000

TIME: 12:19:53

Input Set : A:\Seqlist.txt

Output Set: N:\CRF3\09202000\I653730.raw

L:12 M:270 C: Current Application Number differs, Replaced Application Number
L:13 M:271 C: Current Filing Date differs, Replaced Current Filing Date